

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Currently amended) A ~~lead-free solder used to connect~~for connecting a connection lead to a material, comprising:

an alloy composition containing 0.002 to 0.015% by mass of phosphorus with the balance consisting of tin;

wherein bismuth, antimony, gallium and titanium are not added to said alloy composition, and

said alloy composition is capable of soldering a metallic material with no oxide film on its surface.

3. (Cancelled)

4. (Currently amended) A connection lead comprising:

a copper strip or other strip conductor; and

a plating provided on at least one side of the strip constructor, said plating being formed of a lead-free solder composed mainly of tin,

wherein said plating ~~containing~~ contains 0.002 to 0.015% by mass of phosphorus with the balance consisting of tin, and ~~having~~ comprises a shape such that the plating in a widthwise direction of the strip conductor has a bulge as viewed

in section with an apex being located at a proper position in the widthwise direction of the strip conductor, ~~and wherein~~ bismuth, antimony, gallium and titanium are not added to said plating, and said plating is capable of soldering a metallic material with no oxide film on its surface.

5. (Currently amended) The connection lead according to claim 4, wherein:
the bulge is in the form of an arc, a triangle, or stairs of which the apex is located at a proper position in the widthwise direction of the strip conductor.

6. (Canceled)

7. (Currently amended) The connection lead according to claim 4, wherein:
the strip connector on its both sides is exposed or is covered with the lead-free solder constituting the plating.

8-13. (Cancelled)

14. (Currently amended) The lead free solder according to claim 2, wherein:
the alloy composition further ~~containing~~ contains 2.0 to 5.0% by mass of silver and 0.01 to 2.0% by mass of copper.

15. (Currently amended) An alloy composition for a lead free solder ~~used to connect~~
for connecting a connection lead to a material, comprising:
0.002 to 0.015% by mass of phosphorus; and
tin,

wherein bismuth, antimony, gallium and titanium are not added to said alloy composition, and said alloy composition is capable of soldering a metallic material with no oxide film on its surface.

16. (Currently amended) The alloy composition according to claim 15, wherein:

the tin forms the balance of the composition.

17. (Currently amended) An alloy composition for a lead free solder ~~used to connect~~ for connecting a connection lead to a material, consisting of:

0.002 to 0.015% by mass of phosphorus;

2.0 to 5.0% by mass of silver;

0.01 to 2.0% by mass of copper; and

tin.

18. (Currently amended) The connection lead according to claim 4, wherein:
said plating further ~~containing~~ contains 2.0 to 5.0% by mass of silver and
0.01 to 2.0% by mass of copper.

19. (Previously presented) The alloy composition according to claim 15,
further comprising:

2.0 to 5.0% by mass of silver; and

0.01 to 2.0% by mass of copper.

20. (Currently amended) The lead free solder according to claim 2, wherein:

said alloy composition excludes bismuth, antimony, gallium and titanium.

21. (Currently amended) The connection lead according to claim 4, wherein:

said plating excludes bismuth, antimony, gallium and titanium.

22. (Currently amended) The alloy composition according to claim 15,

wherein:

said alloy composition excludes bismuth, antimony, gallium and titanium.

23. (Cancelled)

24. (New) A lead-free solder, comprising:

an alloy composition containing 0.002 to 0.015% by mass of phosphorus
with the balance consisting of tin;

wherein said alloy composition is capable of generating on its surface an
oxide film with a thickness of less than 6 μm in a range of 250 to 350 degrees
centigrade.

25. (New) The lead-free solder according to claim 24, wherein the alloy
composition is bismuth, antimony, gallium and titanium free.

26. (New) A lead-free solder, comprising:

an alloy composition that contains 0.002 to 0.015% by mass of phosphorus with a
balance consisting of tin, and that is bismuth, antimony, gallium and titanium free.

27. (New) The lead-free solder according to claim 26, wherein the alloy composition is capable of forming an oxide film on its surface, with the formed oxide film having a thickness of less than 6 μm in a range of 250 to 350 degrees centigrade.